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MAR 25 1981

MEMORANDUM FOR: EXECUTIVE SECRETARY,  
NATIONAL SECURITY COUNCIL

SUBJECT: Potential Soviet Attack on Our Essential  
Communications Systems and Organizations

1. The Soviets are rapidly achieving the capability of launching an effective all-out electromagnetic war against the non-Soviet world. They are building large numbers of high powered communications and broadcast transmitters which appear to be in excess of their internal needs, they have a well integrated, centralized national communications system, and a very well developed jamming and jamming control organization which is now effectively employed against the transmissions of the Voice of America and the British Broadcasting Corporation.

2. The Soviet capability to engage in electromagnetic warfare has serious implications beyond the present attack on the VOA as it is estimated that even with presently available facilities they can at any time effect complete disruption of most of our intercontinental point-to-point and long distance mobile radio communications. The strategically critical North Atlantic and North Pacific high frequency systems of all the military services and the long distance mobile communications of the Air Force and the Navy are highly vulnerable to this attack. A more detailed discussion of the Soviet capability and its implications is attached as Tab A.

3. In examining the problem of intelligence to support adequate countermeasures to Soviet attack on our vital communications systems, it is apparent that:

a. There is no agency with authority and competence to plan and direct all phases of the civilian, non-military governmental, and military communications activities of the United States necessary for electromagnetic warfare with the Soviets.

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b. There is need for an effective centrally planned intelligence program to integrate the signal intercept activities and other collection efforts necessary to determine the Soviet capabilities, intentions, plans, and resources for electromagnetic warfare.

c. Monitoring systems for obtaining intelligence of Soviet electromagnetic warfare activities by analyzing their radio signals must be greatly augmented to supply the raw signal intelligence required.

d. The Central Intelligence Agency can establish the intelligence program and coordinate the signal monitoring activities, but effective guidance of the CIA effort and of the defensive and offensive aspects of an electromagnetic warfare program can only be achieved by creation of a central authority responsible for over-all guidance. This authority should be provided with funds to construct and operate radio communications and other radio transmitting and receiving facilities for the conduct of electromagnetic warfare when existing facilities are inadequate to the needs. The coordinating agency should be possessed of authority to direct the establishment and operation of new facilities (for which it would provide funds when necessary) by Federal agencies or through contract with private organizations. The coordinating authority should not engage directly in the construction or operation of any facilities, but would provide integrated policy guidance for the entire sphere of electromagnetic warfare. Such an agency could effect the establishment of the trans-Atlantic relay system which has recently been under discussion in government circles as a means of partially circumventing Soviet attack on the critical North Atlantic high frequency radio communication channels.

5. It is believed that the National Security Council should consider recommending the establishment by Executive Order of a central authority to coordinate and provide integrated guidance to all United States radio communications systems and organizations as necessary to prepare the United States adequately for defense against Soviet attack on our radio communications systems and to mobilize the maximum United States potential for counterattack. The requisite authority for the establishment of such an agency should rest in the emergency powers of the President under the Communications Act of 1934 and in war emergency legislation.

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6. It is believed that this is a matter of concern to the President's Communications Policy Board, to the Departments of State and Defense, and to the Federal Communications Commission. It would appear to be in order to refer this proposal to those agencies for consideration and comment with due regard to the urgency of the situation resulting from the continuing growth of the Soviet potential in this field.

WALTER B. SMITH  
Director

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## DISCUSSION

1. This discussion examines the current situation and the probable developments of Soviet activities in the field of electromagnetic warfare. The term "electromagnetic warfare" as used herein includes jamming, counter-jamming, evasion, deception, screening, etc., as related to radio communications and radio navigation systems of all types.

2. A number of factors are placing the Soviets in a position to dominate the world radio communication system through overloading the radio spectrum with communications signals or by deliberate jamming or the threat of jamming. The USSR has:

a. A large number of high-powered broadcast, communications, and jamming transmitters installed and is building many more. The present number of broadcast transmitters appears to be well in excess of the normal needs of the Soviet Union. For example, some 30 transmitters in the Moscow area are carrying only five or six different programs.

b. A highly centralized, well-integrated communications system. This system is made up of wire and radio networks built around approximately 30 communication centers and is probably one of the best in the world.

c. An extensive centralized intercept and jamming control system, undoubtedly integrated with the communications network, and capable of very rapid identification and jamming of signals throughout the international broadcasting and communications bands. This is the only system of its kind in existence and far exceeds anything which has been contemplated by the West.

d. Territorial extent and geographic position that encompasses more than 180° of longitude and has jamming transmitter sites capable of taking advantage of all radio wave propagation conditions prevailing throughout the entire cycle of daylight and darkness during the 24 hours.

e. In addition, the Soviets have acquired actual or potential control over a large part of the frequency spectrum available for international uses by having direct control of all frequencies assigned to the USSR, their satellites, and the areas under their influence. The Soviets have registered with the International Telecommunication Union large numbers of frequencies claimed to be needed by them, and if this legal fiction fails they have indicated a readiness to disregard the international agreements in the use of radio frequencies.

3. The capability resulting from the combination of the above factors presently, or will soon, place the USSR in position to achieve three major objectives having serious implications for restricting the freedom of action of the NATO powers and particularly the United States. Without in any way engaging in open warfare, the USSR can:

a. Prevent satisfactory reception of VOA, RFE and other international broadcasts conveying information to Russian and satellite peoples from outside the Soviet orbit. This capability has been demonstrated and the reception of these programs in the important areas of the USSR will be little more than a few percent effective in spite of anything we can do, so long as we must rely upon present technical systems of broadcasting.

b. Effect the deliberate and systematic breakdown of the present complex international telecommunications agreements and the world-wide communications systems which they establish. This being possible, the USSR can dictate the terms and systems of future agreements which will give the Soviet orbit whatever monopoly of communications it may desire, particularly of broadcasting in Eurasia and Africa and to South America.

c. Effect complete disruption at any time of intercontinental point-to-point and long distance mobile communications including particularly the strategically critical North Atlantic and North Pacific communications systems and the long distance mobile communications of the Air Force and Navy. The importance of this capability in time of war cannot be overemphasized.

4. The United States has only recently begun to recognize the implications of the foregoing situation to our national security, particularly in view of the fact that there is, at present, no organization or system capable of dealing with more than a small portion of the problem.

There is no central organization within the United States Government with the authority and competence to plan and implement the defense against this type of attack. The communications operations of the Military Departments, the Civil Aeronautics Administration, the Department of Commerce (other than CAA), Treasury, FBI, and other governmental activities and the civil communications operations conducted by license of the Federal Communications Commission are largely separate and independent activities. They are presently integrated only through a common mechanism for assignment of frequencies which focuses on the Interdepartmental Radio Advisory Committee. This Committee is an interdepartmental committee which reaches conclusions by mutual agreement of the members, often on the basis of long discussion and much compromise. It has neither the authority nor competence to deal with the problem considered herein.

5. Portions of the necessary operating organizations and the technical intelligence collecting and collating systems now exist. The central agency, however, which is lacking, must have authority and

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responsibility equal to the task of planning and supervising this entire phase of warfare which will involve all of our communications resources—scientific, technical, industrial, and manpower. The authority for establishing this central directing group should rest in the emergency powers of the President under the Communications Act of 1934 and in war emergency legislation.

6. There exist within the Department of Defense, the Federal Communications Commission, non-military government users of radio frequencies, and in the communication industry great resources of systems and capabilities to combat this attack on our interests, but they must be organized and provided with integrated direction.

7. CIA, with the support of the several monitoring activities and the other collection activities capable of contributing information concerning Soviet jamming and other electromagnetic warfare matters, can provide much of the intelligence needed by the VOA and other systems subject to Soviet attack. However, until there is some comprehensive over-all authority established to integrate all U.S. resources for the conduct of the radio war, there can be no adequate guidance of either the electromagnetic warfare operations or the intelligence support therefor.

8. Minor portions of the signal monitoring systems required exist in the form of stations which have been established for other purposes, but many new specialized receiving stations must be established as well as a mechanism provided for coordinating all of the facilities into an integrated intelligence system. The proposal to augment the facilities of the Armed Forces Security Agency, now before the National Security Council will only partially meet these needs.